2003 CORN CHEMICAL USAGE

Nitrogen was applied to 96 percent of the total 2003 corn planted acreage in the Program States: Colorado, Illinois, Indiana, Iowa, Kansas, Kentucky, Michigan, Minnesota, Missouri, Nebraska, New York, North Carolina, North Dakota, Ohio, Pennsylvania, South Dakota, Texas, and Wisconsin. Corn growers used an average of 1.7 applications per acre while applying 78 pounds of nitrogen per treatment. This computes to a crop year rate per acre of 136 pounds per acre. In the Program States, 79 percent of the corn planted acreage received a phosphate application, while potash was applied to 64 percent of the planted acreage.

Herbicides were applied to 95 percent of the corn-planted acreage in 2003, in the Program States. Atrazine continued to be the most widely applied herbicide with 68 percent of the planted acreage being treated. It was applied at a rate of 1.04 pounds per acre. Acetochlor, at 26 percent of the planted acres treated, was the second most widely applied herbicide, followed by glyphosate and S-metolachlor, both applied to 19 percent of the planted corn acreage treated in the Progam States.

In 2003, 29 percent of the corn planted acreage was treated with insecticides in the Program States. Cyfluthrin and tebupirimphos were the most widely applied insecticides, both applied to 7 percent of the acres planted to corn in the States surveyed.

CORN: Acreage, Percent Receiving Chemicals, Number of Applications, Rates per Application, Selected States, 2003

State	Area Planted	Nitrogen			Phosphate			Potash			Herbicide	Insecticide
		Area Applied 1/	Appli-cations	Rate per Appli-cation	Area Applied 1/	Appli-cations	Rate per Appli-cation	Area Applied 1/	Appli-cations	Rate per Appli-cation	Area Applied 1/	Area Applied 1/
	1,000 Acres	Percent	Number	Pounds	Percent	Number	Pounds	Percent	Number	Pounds	Percent	Percent
IA	12,400	93	1.4	94	59	1.0	61	65	1.0	80	96	14
MN	**7,200**	**95**	**1.6**	**74**	**89**	**1.0**	**44**	**73**	**1.0**	**64**	**95**	**13**
WI	3,750	99	1.8	55	90	1.0	38	89	1.1	61	98	22
Total 2/	72,770	96	1.7	78	79	1.1	53	64	1.0	78	95	29

1/ Refers to acres receiving one or more applications of a specific chemical.
2/ Refers to 18 major corn states including: CO, IL, IN, IA, KS, KY, MI, MN, MO, NE, NY, NC, ND, OH, PA, SD, TX and WI.

CORN: Frequency and Extent of Chemical Usage by Active Ingredient, Minnesota, 2003 1/

Active Ingredient	Area Applied 2/	Applications	Rate per Application	Rate per Year	Total Applied
	Percent	Number	Pounds	Pounds	1,000 Pounds
Herbicides					
Acetochlor	30	1.0	1.73	1.73	3,683
Atrazine	45	1.0	0.63	0.64	2,112
Bromoxynil	3	1.0	0.31	0.31	63
Clopyralid	8	1.0	0.10	0.10	54
Dicamba	11	1.0	0.26	0.26	210
Dicamba, Dimet. salt	4	1.0	0.09	0.09	24
Dicamba, Pot. salt	8	1.0	0.34	0.34	183
Diflufenzopyr-sodium	4	1.0	0.04	0.04	13
Dimethenamid-P	5	1.0	0.08	0.08	30
Flumetsulam	8	1.0	0.04	0.04	20
Glufosinate-ammonium	9	1.0	0.27	0.29	198
Glyphosate	22	1.2	0.72	0.91	1,427
Mesotrione	18	1.0	0.11	0.11	144
Metolachlor	3	1.0	2.13	2.13	392
Nicosulfuron	21	1.0	0.02	0.02	30
Primisulfuron	4	1.0	0.02	0.02	5
Rimsulfuron	17	1.0	0.01	0.01	12
S-Metolachlor	12	1.0	1.93	1.93	1,682
Insecticides					
Chlorpyrifos	3	1.0	1.17	1.17	214

1/ Planted acres in 2003 for Minnesota were 7.20 million acres.
2/ Refers to acres receiving one or more applications of a specific chemical.